FINDING YOUR WAY THROUGH THE REFERENCE JUNGLE
(Tuberculosis reference materials to keep in a central location)

Core reference materials

1. National Tuberculosis Nurse Consultant Coalition. Tuberculosis Nursing: A Comprehensive Guide to Patient Care. National Tuberculosis Controllers Association. 1997.

This is the first place for public health nurses to look for information on the whats, hows, and whys of tuberculosis. ***Some of the portions on tuberculin skin testing and treatment for latent TB infection have changed, however. It may be a good idea to insert a copy of the new guidelines (reference number 5, below) into that portion of the nursing manual.***

This manual is under revision. Information about a revised version will be provided at a later date.

2. Centers for Disease Control and Prevention. Core Curriculum on Tuberculosis: What the Clinician Should Know. Fourth Edition, 2000. **NEW**

This curriculum was designed to present basic information about TB for health care professionals. It is intended for use as a reference manual for clinicians caring for persons with or at high risk for TB disease or infection. In addition, it was designed to be useful in developing educational programs. ***It is not meant to provide detailed answers to all public health or clinical questions about TB, nor is it meant as a substitute for any specific guidelines.***

3. American Thoracic Society and Centers for Disease Control and Prevention. Treatment of tuberculosis and tuberculosis infection in adults and children. *Am. J. Respir. Crit. Care Med*. 1994;149:1359-1374.

This is the official statement to be referenced when discussing treatment guidelines for tuberculosis disease. ***The portions regarding tuberculin skin testing and treatment of latent TB infection have changed and should not be referenced from this document (see reference 5, below).***

4. American Thoracic Society and Centers for Disease Control and Prevention. Diagnostic standards and classification of tuberculosis in adults and children. *Am. J. Respir. Crit. Care Med*. 2000;161:1376-1395. **NEW**

This is the official statement to be referenced when discussing diagnostic procedures for tuberculosis disease. **This document replaces the 1990 Diagnostic Standards and Classification of Tuberculosis** and is intended to provide a framework for and understanding of the diagnostic approaches to tuberculosis infection/disease and to present a classification scheme that facilitates management of all persons to whom diagnostic tests have been applied.

NEW

5. Centers for Disease Control and Prevention. Targeted tuberculin testing and treatment of latent tuberculosis infection. MMWR 2000;49(No. RR-6).

This is the official statement to be referenced when discussing who should receive skin tests and how people with positive skin tests should be treated. **This document replaces the 1981 "Tuberculin Skin Test" and the preventive therapy portions of 1994 Treatment of tuberculosis and tuberculosis infection in adults and children (reference number 3).**

Other important reference materials

6. Centers for Disease Control and Prevention. Improving Patient Adherence to Tuberculosis Treatment. 1994.

7. Centers for Disease Control and Prevention. Forging Partnerships to Eliminate Tuberculosis. 1995.

8. Centers for Disease Control and Prevention. Guidelines for preventing the transmission of *Mycobacterium tuberculosis* in health-care facilities, 1994. MMWR 1994;43(No. RR-13).

9. Centers for Disease Control and Prevention. NIOSH guide to the selection and use of particulate respirators certified under 42 CFR 84. 1996.

10. Centers for Disease Control and Prevention. Self-Study Modules on Tuberculosis. Modules 1-5, 1995. Modules 6-9, 2000.

Various Division of Public Health / TB Program Documents

Antituberculosis Therapy Program

NEW

Initial Request for Medication--DOH 4000 (Rev. 7/00)
Medication Refill Request--DOH 4126 (Rev. 5/95)
Follow Up on Therapy--DOH 4125 (Rev. 5/95)

Wisconsin Tuberculosis Drug Reimbursement Program (TBDRP) *Billing Instructions* (rev. 4/00)

Tuberculin Skin Test Training
Instructor's Manual
Participant Packet

Tuberculosis Contact Investigations

Tuberculosis Record (DOH4756)

TB Fact Sheet Series
Sputum Conversion during TB Treatment
Rifater and Rifamate in the Treatment of TB

Tuberculin Skin Testing for Suspected TB
The Importance of Rifampin
False-Positive Cultures for *Mycobacterium tuberculosis*

Communicable Disease Spring Seminar TB Program packets

Spring 2000
- Tuberculosis Program staff list
- Wisconsin Tuberculosis Cases by Region/County (1995-1999)
- Suspect Case Sheet
- Tuberculosis statutes (s. 252.07, 252.10)
- Administrative Rule: Control of Communicable Diseases, Subchapter II—Tuberculosis (HFS 145.08-145.13)
- Division of Tuberculosis Elimination Education and Training Materials

Spring 1999
- Tuberculin Skin Test Caliper Rulers Order Form
- What to do when your patient moves out of your jurisdiction?

Spring 1998
- Tuberculosis Related (TR) Medicaid benefit information

Spring 1997
- Sample letters for school-based contact investigations
- TB-Net information
- Sample Isoniazid Declination
- Free Courier Service for Mycobacterial Specimens—State Lab
- Submission of Specimens for Nucleic Acid Amplification Testing

Spring 1996
- American Lung Association TB Incentive and Enabler Program
- Sample Agreement to Share DOT Responsibility

<u>Website addresses</u>
Wisconsin Tuberculosis Program http://www.dhfs.state.wi.us/dph_bcd/TB/
Centers for Disease Control, Division of TB Elimination http://www.cdc.gov/nchstp/tb

Highlights from
American Thoracic Society and Centers for Disease Control and Prevention. **Diagnostic standards and classification of tuberculosis in adults and children.**

This document contains a brief, yet comprehensive overview of tuberculosis epidemiology, transmission, and pathogenesis. It gives very detailed explanations of the clinical manifestations of tuberculosis and diagnostic microbiology, including assessment of laboratory performance. Various aspects of the tuberculin skin test are also described in detail.

Frequently asked public health questions answered in this document:

1. *What does M. tuberculosis complex mean?* See page 1377, first column, last paragraph.

2. *What if a person previously infected with TB is exposed to TB again?* See page 1378, second paragraph.

3. *What are the features of an abnormal chest x-ray in a person with active TB versus a person with latent TB infection?* See pages 1378 (bottom) through the first column on p. 1379.

4. *What do these smear results mean? Are the numbers of AFB going up or down?* See Table 2, page 1383.

5. *The lab used the word "probe" when they gave me results. How do I interpret these results?* See page 1384: Identification of mycobacteria directly from clinical specimens and page 1385: Identification of mycobacteria from culture.

6. *Why do repeated skin tests on the same person sometimes give different results?* See page 1387, "Tuberculin" section.

7. *If I'm doing a TB "clinic," can I predraw the PPD ahead of time?* See page 1388, first full paragraph.

8. *When I read the skin test at 48 hours, it was negative. The patient called me a few days later to tell me there was a reaction at the site. What happened?* See page 1388, the section titled "Immunologic Basis for the Tuberculin Reaction."

9. *What is a multiple-puncture test and what should be done if a referred patient had one performed elsewhere?* See page 1388, second column, second paragraph.

10. *Which vaccines can cause false negative results on a skin test and how can this be avoided?* See page 1388, "Interpretation of Skin Test Reactions."

11. *Can too many skin tests cause a positive reaction?* See page 1390, "Boosted Reactions and Serial Tuberculin Testing."

12. *What is the use of BCG and how does it affect skin test results?* See page 1390, "Previous Vaccination with BCG."

(Frequently asked public health questions answered in Diagnostic standards and classification of tuberculosis in adults and children, continued)

13. *If a health care worker had a pre-employment skin test reaction of 4 mm (interpreted as negative), how should subsequent skin tests be evaluated?* See page 1390: Definition of Skin Test Conversions.

14. *Why is anergy testing seldom indicated?* See page 1390 and 1391, "Anergy Testing in Individuals Infected with HIV."

Highlights from:
Centers for Disease Control and Prevention. **Targeted tuberculin testing and treatment of latent tuberculosis infection.**

The guidelines now recommend nine months of daily isoniazid treatment as the preferred regimen for all adults with latent TB infection (LTBI), regardless of whether the patient is coinfected with HIV. The guidelines also include a shorter course alternative using a two-month regimen of rifampin and pyrazinamide. The guidelines eliminate routine baseline and follow-up laboratory monitoring, except for patients with HIV infection, pregnant and postpartum women, and patients with a history or risk of liver disease. The statement emphasizes the importance of monthly clinical monitoring for signs of adverse drug effects.

The statement recommends targeted testing efforts to effectively identify and treat individuals with recent LTBI and those at high risk for developing TB, rather than widespread TB screening.

Groups considered to be at higher risk of recent TB infection include:
Health care workers, people who inject drugs, migrant farm workers, people who are homeless, residents of long-term care facilities (e.g., correctional facilities and nursing homes), the elderly, and people born in areas of the world where TB is common (e.g., developing countries in Asia, Africa, and Latin America).

People with suppressed or impaired immune systems are at highest risk of developing active disease if infected. These include people with diabetes mellitus, silicosis, leukemia, Hodgkin's disease, low body weight, organ transplants, corticosteroid treatment, and injection drug use.

The guidelines recommend replacing screening programs for low-risk populations with targeted efforts to provide populations at risk with testing and treatment services. The Mantoux tuberculin skin test must be interpreted according to the population tested. Interpretation criteria for the skin test in different populations are provided.

It is recommended that all children be screened for risk factors for TB infection, which is usually done through a questionnaire. Those at risk may be candidates for a tuberculin skin test. The only recommended regimen for treatment of LTBI in infants, children, and adolescents is nine months of isoniazid taken daily or twice weekly. If taken twice weekly, therapy must be directly observed.

<u>Frequently asked public health questions answered in this document:</u>

1. *What are the changes from prior recommendations on skin testing and treatment of infection?* See page 3, Table 1.

2. *Why all the changes?* See pages 5-7.

3. *Why shouldn't I say "preventive therapy" any more?* See page 7: Change in Nomenclature.

4. *What is the scientific basis for all the changes?* See pages 7-21.

(Frequently asked public health questions answered in Targeted tuberculin testing and treatment of latent tuberculosis infection, continued.)

5. *I'm still hung up on the age 35 thing. Why was age an issue and why is it less important now?* See page 6, first two paragraphs.

6. *Why did the standard duration of isoniazid change from six months to nine?* See page 14, second full paragraph.

7. *Can a six month regimen of isoniazid still be used to treat LTBI?* See page 30-32: Isoniazid for 6 mo.

8. *My school district requires annual skin test of students and staff. Is this a good use of resources?* See page 22, especially the last sentence under Identification and Access to High-risk Groups.

9. *What is the role of the health department in implementing targeted tuberculin testing?* See pages 22-23.

10. *What are the new criteria for positive tuberculin skin tests, by risk group?* See Table 7 on page 24.

11. *When is it necessary to collect sputum specimens for a person being considered for treatment of LTBI?* See page 25: Sputum Examinations.

12. *Where can I learn more about the individual anti-TB drugs?* See pages 26-27. Pages 28 and 29 summarize the medication doses, toxicities, and monitoring requirements.

13. *What are the new recommended regimens for treatment of LTBI?* See Table 10, page 31.

14. *How should the regimen choice be made?* See page 32: Choice of regimen.

15. *If a patient has interruptions in therapy, how will I know when treatment is complete?* See page 32-33: Completion of treatment.

16. *What are special considerations for treatment of LTBI?* See pages 33-38.

    HIV-infected persons--Page 33
    Persons with fibrotic lesions/suspected disease--Page 33-34
    Pregnancy and lactation--Page 34-35
    Children and adolescents--Page 35-36
    Contacts of patients with tuberculosis (drug susceptible and drug resistant)--Page 36-37

17. *What kind of treatment should be given to persons likely to be infected with MDR TB?* See page 37, second full paragraph.

(Frequently asked public health questions answered in Targeted tuberculin testing and treatment of latent tuberculosis infection, continued.)

18. *Is the tuberculin skin test safe and/or reliable during pregnancy?* See page 34: Pregnancy and lactation, first paragraph.

19. *Should pregnant women be targeted for tuberculin skin testing? Should TB-infected pregnant women receive treatment for LTBI?* See pages 34-35: Pregnancy and lactation.

20. *Should everyone with a positive skin test, even low-risk tuberculin reactors, receive treatment for LTBI?* See page 37: Low-risk tuberculin test reactors.

21. *Should BCG-vaccinated persons receive treatment for LTBI?* See page 37: BCG-vaccinated persons.

22. *Which patients should get directly observed therapy (DOT)?* See page 37-38: Directly observed therapy and other measures to increase adherence.

23. *Other than DOT, what techniques can be used to increase therapy adherence?* See page 38.

24. *Who should have baseline laboratory testing and what kind of testing should they have?* See page 39: Pretreatment evaluation.

25. *What kind of evaluation should be conducted before treatment begins?* See page 38: Pretreatment evaluation.

26. *Who should have routine laboratory monitoring during treatment of LTBI?* See page 39: Monitoring of treatment.

27. *When is isoniazid contraindicated and when should it be stopped?* See page 39, first full paragraph and fourth paragraph.

28. *How often should clinical monitoring be done and what should be included?* See page 39: Monitoring of treatment.